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**Final Technical Report:
"Interactive NOVA: Earth"
Production of an Interactive Videodisc-based Curriculum
April 12, 1995**

Goal

Under this contract, the Interactive Projects Group at WGBH has produced two videodiscs, computer software and a user's guide about Earth Systems Science. The materials were being designed primarily for use in middle schools, but they include extensions and enrichments intended for high school students. To be useful in as many schools as possible, the project was completed with two alternative use scenarios: one for classes which have computer-controlled videodisc players, and one for classes with a videodisc player equipped only with a barcode reader.

Process

The project involved a Working Group of 17 scientists and educators appointed by NASA; Scholastic, Inc.; and WT Chen & Co. in addition to a team at WGBH. NOAA Chief Scientist Dr. Kathryn Sullivan agreed to serve as an on-camera host, and was an active member of the Working Group. Dr. Malcom Phelps, Chief of the Educational Technology Branch at NASA headquarters, was the NASA leader for the project.

For most of the production period, the WGBH team included a producer, an associate producer a production coordinator/researcher and an associate designer, and major part-time contributions from a production assistant, an art director, other designers, two illustrators, a programmer and a video editor, plus editorial and administrative oversight by the Interactive Projects Executive Producer, Director, and several administrative staff members. In addition, WGBH engaged the services of many outside consultants to help shape the project. These include classroom teachers, curriculum developers, scientists, and middle school students.

(NASA-CR-198004) INTERACTIVE NOVA:
EARTH: PRODUCTION OF AN INTERACTIVE
VIDEODISC-BASED CURRICULUM Final
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Foundation) 3 p

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Unclass

Findings

The project has now been completed. Scholastic, Inc. began distributing the product early in 1995, having announced it through their catalogue and promotional brochures the previous year.

The focus of Interactive NOVA: Earth is habitability: What makes the Earth a good home? This overarching theme is divided into five component questions: How does the Earth provide us with moderate temperatures, fresh water, food, breathable air, and protection from harmful radiation?

With assistance from scientists and teachers, the team developed investigations which lead students to discover ways in which the Earth systems interact to produce a livable environment.

Most of the space on the laserdiscs is devoted to short video stories and documentaries which fit into the lesson plans for the investigations. These stories are designed to motivate children to learn, and to acquire a positive image of the scientific enterprise. The videodiscs will also include graphics, maps and other still images needed for the investigations.

The computer software features an innovative interface with the disc materials consisting of a set of "stories" about each of the five divisions of the habitability question. The disc materials appear in the interface as sidebars to these stories. Thus the fresh water investigation includes stories about evaporation, condensation and water use. These stories lead students to all of the videodisc materials, and present them in the context of the investigation. The stories thus serve as a guided tour to the project materials.

The project materials were field tested in middle schools classrooms in the Boston metropolitan area at several stages in product development, and the field experience was used to improve the final product. Groups of students were also brought to WGBH to try out computer activities.

Future of the Project

The complete product is now in the hands of Scholastic's sales force. Early sales figures are not yet available.

The product was demonstrated at the National Science Teachers Association annual conventions both in 1994 and 1995. Dr. Phelps and Scholastic plan further training and publicity efforts.